

I claim:

- 1 1. A video display apparatus, comprising:
2 a first display panel, a second display panel and a third display panel; wherein:
3 the first display panel has an aspect which is generally the mirror image of the
4 similar aspect of the second display panel and the third display panel.
- 1 2. The video display apparatus of claim 1, wherein:
2 the aspect is the relative buff direction of a buff layer.
- 1 3. The video display apparatus of claim 2, wherein:
2 the buff layer is a silicon buff layer.
- 1 4. The video display apparatus of claim 2, wherein:
2 the buff layer is a glass buff layer.
- 1 5. The video display apparatus of claim 2, wherein:
2 the buff layer is a layer of material overlying a silicon layer.
- 1 6. The video display apparatus of claim 2, wherein:
2 the buff layer is a layer of material overlying a glass layer.
- 1 7. The video display apparatus of claim 2, wherein:
2 the buff layer is a polyimide layer overlying a silicon layer.
- 1 8. The video display apparatus of claim 2, wherein:
2 the buff layer is a polyimide layer overlying a glass layer.
- 1 9. The video display apparatus of claim 1, wherein:
2 the first display panel is a green display panel.

- 1 10. The video display apparatus of claim 1, wherein:
2 the video display apparatus is a three panel projection display apparatus.
- 1 11. The video display apparatus of claim 1, wherein:
2 each of the first display panel, the second display panel and the third display
3 panel is a liquid crystal display.
- 1 12. The video display apparatus of claim 1, wherein:
2 each of the first display panel, the second display panel and the third display
3 panel is a reflective liquid crystal display.
- 1 13. The video display apparatus of claim 1, wherein:
2 the video display apparatus is a non-telecentric projection system.
- 1 14. The video display apparatus of claim 1, wherein:
2 the aspect is the relative twist direction of a liquid crystal material layer.
- 1 15. A set of liquid crystal panels for a video projection system, comprising:
2 a first panel having a first relative buff direction;
3 a second panel having the first relative buff direction; and
4 a third panel having a second relative buff direction.
- 1 16. The set of claim 15, wherein:
2 the second relative buff direction is generally a mirror image direction as
3 compared to the first relative buff direction.
- 1 17. The set of claim 15, wherein:
2 the second relative buff direction is offset from a reference buff direction by an
3 amount equal to but opposite an offset of the first relative buff direction.

- 1 18. A set of liquid crystal panels for a video projection system, comprising:
2 a first panel having a first relative liquid crystal twist direction;
3 a second panel having the first relative liquid crystal twist direction; and
4 a third panel having a second relative liquid crystal twist direction.
- 1 19. The set of claim 18, wherein:
2 the second relative liquid crystal twist direction is generally a mirror image
3 direction as compared to the first relative liquid crystal twist direction.
- 1 20. The set of claim 18, wherein:
2 the second relative liquid crystal twist direction is offset from a reference liquid
3 crystal twist direction by an amount equal to but opposite an offset of the first relative
4 liquid crystal twist direction.
- 1 21. A method for producing a multi-panel display apparatus, comprising:
2 buffing a first panel buff layer in a first direction;
3 buffing a second panel buff layer in the first direction; and
4 buffing a third panel buff layer in a second direction.
- 1 22. The method of claim 21, wherein:
2 the first panel buff layer, the second panel buff layer, and the third panel buff
3 layer are each buff layers overlaying a silicon layer in, respectively, a first panel, a
4 second panel, and a third panel.
- 1 23. The method of claim 22, and further including:
2 providing a liquid crystal in the first panel having a first twist direction;
3 providing a liquid crystal in the second panel having the first twist direction; and
4 providing a liquid crystal in the third panel having a second twist direction.

- 1 24. The method of claim 22, and further including:
2 assembling the first panel, the second panel, and the third panel such that a first
3 image from the first panel, a second image from the second panel, and a third image
4 from the third panel converge to create a combined image.
- 1 25. The method of claim 21, wherein:
2 the third panel buff layer is a layer in a green display panel.
- 1 26. A liquid crystal panel comprising:
2 a buff layer;
3 a liquid crystal layer; and
4 indicia of a buff direction associated with said buff layer.
- 1 27. A liquid crystal panel according to claim 26, further comprising indicia of a twist
2 direction associated with said liquid crystal layer.
- 1 28. A liquid crystal panel according to claim 26, wherein said indicia of said buff
2 direction is included in a part number associated with said panel.